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Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

June 14, 1998

In the Matter of:	
An Allocation of Spectrum for the Private Mobile Radio Services	**RM-9267**

TO: The Commission

TRANSMITTAL LETTER

Transmitted herewith are an original and nine (9) copies of "**REPLY COMMENT IN THE MATTER OF AN ALLOCATION OF SPECTRUM FOR THE PRIVATE MOBILE RADIO SERVICES**" to be entered in the above-styled rulemaking proceeding RM-9267. I hereby certify that these documents are being deposited at a staffed service desk of the United States Postal Service on June 14, 1998, in an envelope as "Express Mail Post Office to Addressee," mailing label no. **EG802023947UW,** with postage paid, addressed to Office of the Secretary, Federal Communications Commission, Room 222, 1919 M Street NW, Washington, D.C. 20554.

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REPLY COMMENT IN THE MATTER OF AN ALLOCATION OF SPECTRUM FOR THE PRIVATE MOBILE RADIO SERVICES

1. As an individual amateur radio operator (N0AL) acting on his own behalf, the undersigned notes that many of the comments in favor of the LMCC petition seem to indicate that, if a problem exists that needs to be addressed, it is not one of a *shortage* of frequencies, but rather of a *misallocation or misuse of presently allocated frequencies.* For example, the original LMCC petition, at paragraph 25, states:

> "The VHF Low Band is basically not useable in urban areas, because building penetration is poor. Interference can be severe from long-range interfering signals, and substantial man-made noise interference predominates in the built-up urban areas. Because of the low frequency, antennas tend to be very large, and when made small enough for reasonable portable products, they become inefficient. Since the band is not structured on a paired frequency basis, simultaneous transmit-receive is not possible."

2. It would appear that many of the problems that LMCC asserts to exist in the VHF low band (25-50 MHz) are really coordination and allocation problems that could be alleviated if the band were restructured on a paired frequency basis, allowing for repeater stations. This would reduce the problem of building penetration, at least when mobile-to-

mobile communication is needed, because the signals from portable products could be received at antennas above most of the man-made noise and buildings, and retransmitted with much higher power from a more favorable location. Moreover, any problem with long-range interference can be reduced by the use of subaudible tones or digital codes, and it is already well-known to amateur radio operators that 50 MHz hand-held radios with antennas of reasonable size and efficiency can be built. See, for example, ICOM's IC-T8A, advertised on page 7 of the May, 1998 issue of QST magazine.

3. Restructuring of the 25-50 MHz band could be accomplished. According to the allocation table of 47 C.F.R. § 2.106, at least the following frequencies are allocated exclusively to the private land mobile service on a primary basis: 30.56-32, 33-34, 35-35.19, 35.69-36, 37-38, 39-40, 42-43.19, 43.69-46.6, and 47.0-49.6 MHz. There appears to be no technical reason why bands such as 37-38 and 39-40 MHz could not be assigned as repeater input/output paired frequencies, for example, or that other paired assignments could not be made. The restructuring of this band should not be difficult, because one would be led to believe, according to paragraph 25 of the LMCC petition, that there must not be very much *active* use of frequencies in this band, if these frequencies are, indeed, "basically not usable in urban areas." Moreover, the comments of others in favor of the LMCC petition seem to confirm that frequencies below 50 MHz are being vacated in droves. For example, the comment of the American Association of State Highway and Transportation Officials states, on page 3,

> "State transportation agencies were licensed for VHF, 47 MHz band frequencies, in the 1950's ... Some of these agencies migrated to other frequency bands in order to improve certain aspects of their systems. ... Some transportation agencies would like to migrate to other frequency

bands but cannot due to existing licenses in certain areas of their respective states. ..."

The American Petroleum Institute states in their petition at paragraph 6:

> "... Moreover, low band channels are likely to experience decreasing use in the future, even for conventional operation, as equipment manufacturers accelerate their development and production efforts for other more favorable spectrum. Accordingly, low band PMRS users ultimately will be persuaded to move their operations to new spectrum in order to take advantage of new technology. ..."

In comments by UTC, The Telecommunications Association, at page 4 it is stated:

> "In the 800 and 900 MHz bands, congestion is also a problem. In most urban areas, there is little or no spectrum available for private systems in these bands. Part of this lack of availability is due to the success of these bands for private use; *users migrated from the lower PLMR bands* in order to deploy more advanced and spectrally efficient trunked systems. ..." [emphasis added]

So it can be concluded from these comments that users of the 25-50 MHz have either left these bands, or want to leave these bands. To the extent that they *have* left these bands, it would inconvenience fewer users to restructure the bands more efficiently for PMRS use. On the other hand, if PMRS users cannot or will not restructure, or have licenses that are currently being "warehoused" rather than used efficiently (see comments of the Industrial Telecommunications Association, Inc. "ITA" paragraph 14), these frequencies should be deallocated from PMRS use and reassigned to a service that can make better use of them, such as the amateur radio service.

4. It is also not clear why such proponents of the LMCC petition as Forest Industries Telecommunications (FIT) cannot make better use of the low-band VHF bands already allocated to PMRS. According to section 3 of their comments, at page 3, "... [T]he most extensive commercial forestry operations are in the Pacific Northwest, in the Southeast, in the northeastern part of New England, particularly, in Maine, and in northern

Wisconsin, Minnesota, and Michigan." Moreover, at page 4, FIT states, "In the *remote, forested areas where the forest products industry conducts most of its operations*, mobile radio is the primary, often the sole, means of communication." There is little or nothing in FIT's petition to suggest that it requires more than two-way voice communication for safety purposes. For this reason, it is a mystery to the undersigned why, in these remote areas [including the southeast, where operation in the 420-450 MHz band is substantially restricted -- see 47 C.F.R. § 97.313(f) and footnote US7, paragraph (i) to 47 C.F.R. § 2.106.], FIT cannot find the frequencies necessary for their use, and finds it necessary to request additional frequencies. Certainly, far from urban areas, there should be little or no problem finding an allocation on the presently-allocated high-band VHF and/or UHF PMRS channels. Furthermore, most of the problems of the 25-50 MHz band asserted by LMCC are *urban area* problems that would not be expected to occur in remote areas. In view of the fact that low-band VHF generally provides longer-range communication than UHF (especially if the band is restructured to allow repeaters, which could easily be accomplished in remote areas), it seems to make little sense for FIT to support an allocation of *new* spectrum that would inconvenience hundreds of thousands of individual amateurs, when there should already be sufficient spectrum available for FIT's use. However, it is noted that if even FIT cannot envision the use of 25-50 MHz even in remote areas, and LMCC asserts that they are useless in urban areas, then to the extent that this is true, the PMRS bands in this part of the spectrum are misallocated and should be reallocated to the amateur service.

5. It is noted that LMCC alleges that the most urgent need for additional PMRS spectrum is for standard, narrow-band voice communication (see the original petition at paragraph 36.) In fact, according to the comments of the Personal Communications Industry Association, Inc. ("PCIA") at page 3, at least some of the added spectrum requested by LMCC is likely to be used for taxicab dispatching. Presumably, much of this operation would be in the 420-430 and 440-450 MHz bands if the LMCC-proposed reallocation were to occur, because LMCC has asserted that these bands are close to existing allocations and would require less expense for conversion of equipment. But if these bands are allocated for PMRS use, the potential will exist for substantial harmful interference from *illegal* operations by PMRS users within the remaining 430-440 MHz band.

6. Such illegal interference by taxicab operators to legitimate amateur operation has, in fact, been the subject of recent major Commission enforcement action. The Commission removed a substantial numbers of illegal taxicab dispatch operations in New York City operating in the 10 meter amateur radio band.[1] See *The ARRL Letter Online*, Vol. 17, No. 16 (April 17, 1998), available at http://www.arrl.org/arrlletter/98/980417 on the Internet. There already exists much amateur radio equipment that is capable of

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[1] See *The ARRL Letter Online*, vol. 17, no. 16, April 17, 1998, available at http://www.arrl.org/arrlletter/98/980417 on the Internet. This report indicates that, out of 44,000 New York City cabbies and more than 12,000 cabs, in which drivers supply their own radios, *some 1,500 or more illegal radios were believed to be in operation.*

Also of interest in this same issue of *The ARRL Letter Online* is the report concerning amateur radio assistance to the National Weather Service Office in Alabama during a series of devastating tornadoes that hit the area. Tom Moore, KL7Q, explained that the National Weather Service in Birmingham is equipped with VHF *and UHF* capability to access remote bases for linking to various repeaters and local SKYWARN nets in the region.

transmitting and receiving *not only on either or both of the bands proposed for reallocation (420-430 and 440-450 MHz), but also on 430-440 MHz.* If the 420-430 and/or 440-450 MHz bands are allocated for PMRS use, including taxicab dispatch use, the widespread availability of amateur radios equipment capable of operating *not only in the bands proposed for reallocation, but also in the 430-440 MHz band, including the amateur satellite band,* may result in substantial illegal operation in the 430-440 MHz band, causing harmful interference to legal amateur operation. As noted above, this type of interference has *already* occurred in the 10 meter band, and was the subject of a substantial enforcement action. Because of the presence of amateur satellites in the 435-438 MHz band, the anticipated illegal operation may even have negative international ramifications.

7. The American Petroleum Institute ("API"), at paragraph 10 of its comment, advances three specific instances of "real life" examples in which requiring API members could not rely upon cellular telephone service due to (1) heavy usage in a blizzard by stranded individuals requiring emergency service, (2) monopolization by the press during a pipeline explosion, and (3) the toppling of cellular towers during an ice storm. However, these *same* reasons support maintaining the amateur radio service at 420-430 and 440-450 MHz, unencumbered by incompatible sharing arrangement such as proposed by LMCC. Indeed, it has recently been reported that AT&T has agreed to spend some $100,000 to set up a VHF repeater *and a UHF repeater, as well as additional receive-only sites tied back to the repeater,* in recognition of amateur radio's role in providing emergency communication in the wake of heavy flooding in northern Kentucky early in 1997. Four

northern Kentucky counties and the City of Falmouth have offered to pay utility bills at the sites. It was further reported that amateur radio was the only means of communication for the first four days of the floods. AT&T was reported as having plans to set up a similar emergency system for amateur radio operators in southwestern Ohio, for a total commitment of $300,000. When all of the equipment is in place, a huge section of northern Kentucky, southwestern Ohio and southern Indiana will be accessible using a 2 watt hand-held transceiver. Thus, it is respectfully submitted that *even cellular communications providers* recognize the value of amateur radio, *including UHF repeaters and remote receivers*[2], to the *general public* when cellular service is unavailable. While reallocation of amateur spectrum demanded by LMCC may benefit some private users of communication equipment, it will adversely affect the general public by making it more difficult for them to report emergencies in the first instance.

8. The position of the National Telecommunications and Information Administration in this Petition is strongly supported, particularly insofar as it opposes the reallocation of spectrum in the 420-430 and 440-450 MHz band. The present sharing arrangement between the radiolocation service and the amateur radio service has proven satisfactory for many years. It is believed that this arrangement by which the 420-450 MHz amateur band came to be shared with the government radiolocation service grew out of tensions during the cold war, when amateurs were required to share with the government many of the bands formerly enjoyed by them on an exclusive basis. It would be both unfair and inequitable to individual amateurs and the amateur service in general to

[2] As noted at paragraph 8 of my original comment, much amateur linking and auxiliary service operation occurs within the subbands of 70 cm spectrum demanded by LMCC.

"reward" amateurs for submitting to such a successful sharing arrangement by instituting a new sharing arrangement in which amateur radio would effectively be driven from large segments of the band by private and/or commercial users. If the government use of the 420-450 MHz band should be reduced or if the band is no longer needed by the government at some point in the future, the band should be given back to its historical occupants, as originally allocated, in recognition of their long-term successful sharing of these frequencies.

9. The comments of the USDA IRAC representative for Radio Policy and Planning of the Forest Service are also supported, both insofar as neither the current radiolocation needs of the Department of Defense and the amateur radio service could be met if the suggested reallocation is followed, and that existing and expanding PCS systems that provide both dispatch and cellular systems should help alleviate the need for much of the requested reallocation requested by LMCC. I would also like to augment the USDA's comments regarding shifting of the financial load of PMRS users to federal agencies by reiterating a statement made in my original comment, and expanded upon by the ARRL in their comments, that some of this load will also be shifted to individual amateur radio operators who are forbidden by law to derive financial advantage from the use of their equipment.

10. The comments of the National Oceanic and Atmospheric Administration are also supported, particularly insofar as they oppose reallocation of amateur spectrum and reinforce and augment the statements in my original comment concerning the public services performed voluntarily by amateur radio operators. The statement filed by

MILDEP IRAC members in regard to the inadvisability of reallocation of the 420-430 and 440-450 MHz bands as requested by LMCC is also supported. The Commission should also note that the original petition and several commentators have asserted that PMRS operation requires high reliability. Because of the high power and extensive deployment of DoD systems in this band, the levels of reliability cited by the petitioners and several others who have filed comments in this proceeding appear unlikely to be attainable in the 420-450 MHz band, insofar as a high level of interference can be expected, as noted in the MILDEP IRAC response. The undersigned also is fully supportive of the comments of NASA insofar as they oppose reallocation of any portion of the 420-450 MHz band for PMRS use. In addition, the statements of the ARRL in its response in this Petition for Rulemaking are fully supported, and notes with particular approval paragraph 24 of its response in which the costs referred to in paragraph 14 of my original comment are both amplified and quantified.

11. Therefore, for all of the above reasons, it is respectfully requested that the Commission deny the petition of LMCC insofar as it concerns the reallocation of 420-430 and 440-450 MHz to PMRS.

Respectfully submitted,

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